

Maintenance Personnel

Olympic Region Highway Maintenance Environmental Compliance Guidance For Protected Terrestrial Species

(Valid through September 2006)

The guidance provided in this document is intended to assist WSDOT maintenance personnel in assuring that highway maintenance activities do not impact protected terrestrial species that occur within the Olympic Region. Maintenance personnel should refer to this document when scheduling future work to determine what, if any, limitations may apply. This document is intended to address the majority of protected plants and animals that could be affected by typical highway maintenance activities conducted in the Olympic Region. However, this document does not address all possible conditions that may arise during maintenance operations that could affect protected terrestrial species. Maintenance staff should consult with their Regional Maintenance Environmental Coordinator prior to initiating any maintenance activity that is not addressed by this guidance or if there is any uncertainty about the applicability of this guidance.

Maintenance activities that cannot comply with this guidance will typically require review by a biologist and the development of specific management conditions prior to the completion of the maintenance activity. Emergency actions are not required to follow the guidance provided herein. In the case of an emergency, WSDOT maintenance personnel should follow their standard emergency procedures to assure all appropriate agencies are notified.

WSDOT Highway Maintenance Activities

The Highway Maintenance and Operation programs include maintenance activities that protect the public infrastructure and public safety, as well as, maintenance services necessary for the daily operations of the highway system. Maintenance personnel are also the first line of defense when natural disasters such as mud slides, floods, fires and earthquakes threaten the system.

Maintenance functions are broken down into nine basic groups including:

- ❑ Group 1 – Roadway Maintenance
- ❑ Group 2 – Drainage Maintenance & Slope Repair
- ❑ Group 3 – Roadside and Landscape Maintenance
- ❑ Group 4 – Bridge and Tunnel Maintenance
- ❑ Group 5 – Snow and Ice Control
- ❑ Group 6 – Traffic Control Maintenance and Operations
- ❑ Group 7 – Rest Area Operations
- ❑ Group 8 – Support Operations
- ❑ Group 9 – 3rd Party Damage and Disaster Operations

Many of the maintenance activities conducted under these nine groups have the potential to impact protected terrestrial species. Impacts could include alteration of habitat and impacts to individuals. Impacts to individuals most commonly occur as a result of disturbance during certain time periods at critical locations such as nest sites during the breeding season. Depending on the timing and location, disturbances may potentially occur when an activity increases visual or audible stimuli over the existing background levels (ambient conditions).

Group 1 – Roadway Maintenance. Group 1 activities include all aspects of pavement and shoulder repair. Roadway maintenance can involve noise-generating activities including pavement grinding for dig-outs, jack hammering, grader patching, shoulder re-grade (pulling shoulders), and chip seal operations. Group 1 activities can also increase the level of visual disturbance. All of these activities are fairly site specific with the exception of shoulder re-grading and chip sealing which can cover several miles in a single day.

Group 2 – Drainage Maintenance & Slope Repair. Group 2 activities address all aspects of drainage maintenance to include catch basin and culvert cleaning and installation, detention/retention basin maintenance, ditch cleaning, and slope repair. Drainage maintenance and slope repair operations can involve the use of an excavator, back hoe, vactor truck, and occasionally jack hammers, which can result in the generation of noise that exceeds ambient noise levels. Group 2 activities could increase the level of visual disturbance. Slope repair activities could impact native vegetation.

Group 3 – Roadside and Landscape Maintenance. Group 3 activities involve roadside maintenance such as mowing, brush cutting, danger tree removal, herbicide applications, litter control and dead animal removal. Group 3 maintenance often includes the use of noise-generating equipments such as chains saws and some tractor- or track-mounted brush cutters. Most mowers do not produce decibel levels exceeding normal traffic noise. All of these activities have the potential to increase the level of visual disturbance. Most of these activities have the potential to impact native vegetation. These activities are fairly site specific except for mowing which can cover many miles in a day.

Group 4 – Bridge and Tunnel Maintenance. Bridge and tunnel maintenance can involve a variety of activities, many of which can increase noise and disturbance levels or result in the removal of nesting material. Some maintenance activities not specific to bridge maintenance (i.e. pavement repair) are covered under the Group 1 activity guidelines. Maintenance activities that are specific to bridge maintenance (i.e. bridge washing, painting, girder repair, inspections) are covered under the Group 4 activity guidelines and the guidance associated with these activities are provided in **Appendix H**.

Group 5 – Snow and Ice Control (Exempt). Group 5 activities are conducted in response to snowfall and ice that affects state highways. Most snow and ice control operations do not produce exceptional noise or visual disturbance levels. These activities are conducted over a wide area and are not in any one location for very long. The exception is pit sites where sand or chemical is loaded. The loudest aspect of this operation is usually the back-up alarm on the trucks and front-end loaders.

Group 5 activities are conducted primarily during winter and are a high priority considering the immediate hazards created by snow and ice conditions. Prompt implementation of Group 5 activities are necessary to maintain a safe environment for the traveling public. Most wildlife and plant species are not vulnerable to snow and ice control activities. Therefore, Group 5 activities are **exempt** from the guidance provided herein.

Group 6 – Traffic Control Maintenance and Operations (Exempt). Group 6 activities involve signal and lighting repair, sign installation and repair, striping and pavement marking and reflective button maintenance. Typical equipment for these operations would operate at or below ambient noise levels and result in limited visual disturbance. Group 6 activities do not have the potential to impact native vegetation. Therefore, Group 6 activities are **exempt** from the guidance provided herein.

Group 7 – Rest Area Operations (Exempt). Group 7 activities are site-specific and occur at developed rest area facilities. Only three rest areas (Maytown – I-5 southbound, Scatter Creek – I-5 northbound, and Elma – SR 8 eastbound) exist in the Olympic Region, none of which occur near documented occurrences or suitable habitat of protected species. Therefore, Group 7 activities are **exempt** from the guidance provided herein.

Group 8 – Support Operations (Exempt). Group 8 activities primarily consist of technical and safety training, support, and testing such as safety meetings, equipment training, technical training, and testing for promotions. Therefore, Group 8 activities are **exempt** from the guidance provided herein.

Group 9 – 3rd Party Damage and Disaster Operations (Exempt). Due to the immediate needs and safety issues generally associated with Group 9 activities, they are **exempt** from the guidance provided herein.

Table 1
Environmental Guidance Applicability

Maintenance Function Group	Applicability*
1 - Roadway Maintenance	Environmental guidance applies due to potential: <ul style="list-style-type: none"> ❑ Disturbance impacts from pavement grinding, jack hammering, grader patching, shoulder re-grade (pulling shoulders), and chip seal operations.
2 – Drainage Maintenance and Slope Repair	Environmental guidance applies due to potential: <ul style="list-style-type: none"> ❑ Disturbance impacts from operation of excavators, back hoes, vector trucks; and jack hammers, and ❑ Habitat impacts from vegetation clearing outside of the developed right-of-way.
3 – Roadside and Landscape Maintenance	Environmental guidance applies due to potential: <ul style="list-style-type: none"> ❑ Disturbance from brush cutting, hazard tree removal, and operation of chain saws; and ❑ Habitat impacts from hazard tree removal, herbicide application, mowing, and vegetation clearing outside of the developed right-of-way.

Maintenance Function Group	Applicability*
4 – Bridge and Tunnel Maintenance	Environmental guidance applies due to potential: <ul style="list-style-type: none"> ❑ Disturbance from cleaning, washing, painting, and repair activities; and ❑ Nest removal from cleaning and washing activities.
5 – Snow and Ice Control	Exempt.
6 – Traffic Control Maintenance and Operations	Exempt.
7 – Rest Area Operations	Exempt. Not applicable to the current rest areas in the region: <ul style="list-style-type: none"> • Maytown (I-5 southbound, MP 93) • Scatter Creek (I-5 northbound, MP 90) • Elma (SR 8 eastbound, MP 2)
8 – Support Operations	Exempt.
9 – 3 rd Party Damage and Disaster Operations	Exempt.

* Regardless of the maintenance function group, all emergency actions are exempt from this guidance.

Guidance Implementation

This guidance is presented in a step-by-step format to facilitate use by WSDOT maintenance personnel. Using the tables, figures and appendices as directed below, the maintenance personnel in charge of the proposed maintenance action shall identify the following for non-emergency maintenance activities:

- Which species group(s) could potentially be present in the county that the activity is proposed;
- If any restricted zones for the species group(s) coincide with the work area; and
- The applicable Best Management Practice(s) for each species group that could be present.

Once this information has been determined, complete the Summary of Applicable Best Management Practices (**Table 5**). Contact your Regional Maintenance Environmental Coordinator if there is uncertainty about the applicability of this guidance to the proposed maintenance activity, or if the applicable BMP(s) prevent the completion of the proposed maintenance activities. An example is provided in **Appendix G**.

Step 1: Using **Table 2** below, determine which species group(s) occurs within the county where the maintenance activity will occur.

Table 2
Sensitive Species Occurrence by County – Olympic Region

Species Group	Clallam	Jefferson	Grays Harbor	Mason	Kitsap	Pierce	Thurston
A	X	X	X	X		X	X
B	X	X	X	X	X	X	X
C			X				
D		X					X
E		X	X		X	X	

Step 2: Using **Table 3** below, determine if any restricted zones for the species group(s) identified in **Table 2** coincide with the work area.

Table 3
Restricted Zones Where Best Management Practices Apply

Species Group	Restricted Zone Location
A	See Figure 1 (Species Group “A” Restricted Zone Map) and Appendix A (Species Group “A” Restricted Zone Matrix)
B	See Figure 2 (Species Group “B” Restricted Zone Map) and Appendices B and C (Species Group “B” Restricted Zone Matrices).
C	See Figure 3 (Species Group “C” Restricted Zone Map) and Appendix D (Species Group “C” Restricted Zone Matrix).
D	See Figure 4 (Species Group “D” Restricted Zone Map) and Appendix E (Species Group “D” Restricted Zone Matrix).
E	<p>Bridges with historical documentations of Species Group E include the following:</p> <ul style="list-style-type: none"> • 16/110 Tacoma Narrows Bridge in Pierce County • 104/5.1 Hood Canal Bridge in Jefferson County • 107/4 Chehalis River Bridge in Grays Harbor County • 303/12 Port Washington Bridge in Kitsap County • 305/10 Agate Passage Bridge in Kitsap County • 509/5A Murray Morgan Bridge in Pierce County <p>Note: This guidance does not address activities specific to bridge maintenance (Group 4 activities), such as those activities that take place on the underside of bridges. See Appendix H for guidance on Group 4 bridge maintenance activities.</p>

Figure 1

Species Group A Restricted Zones Olympic Region

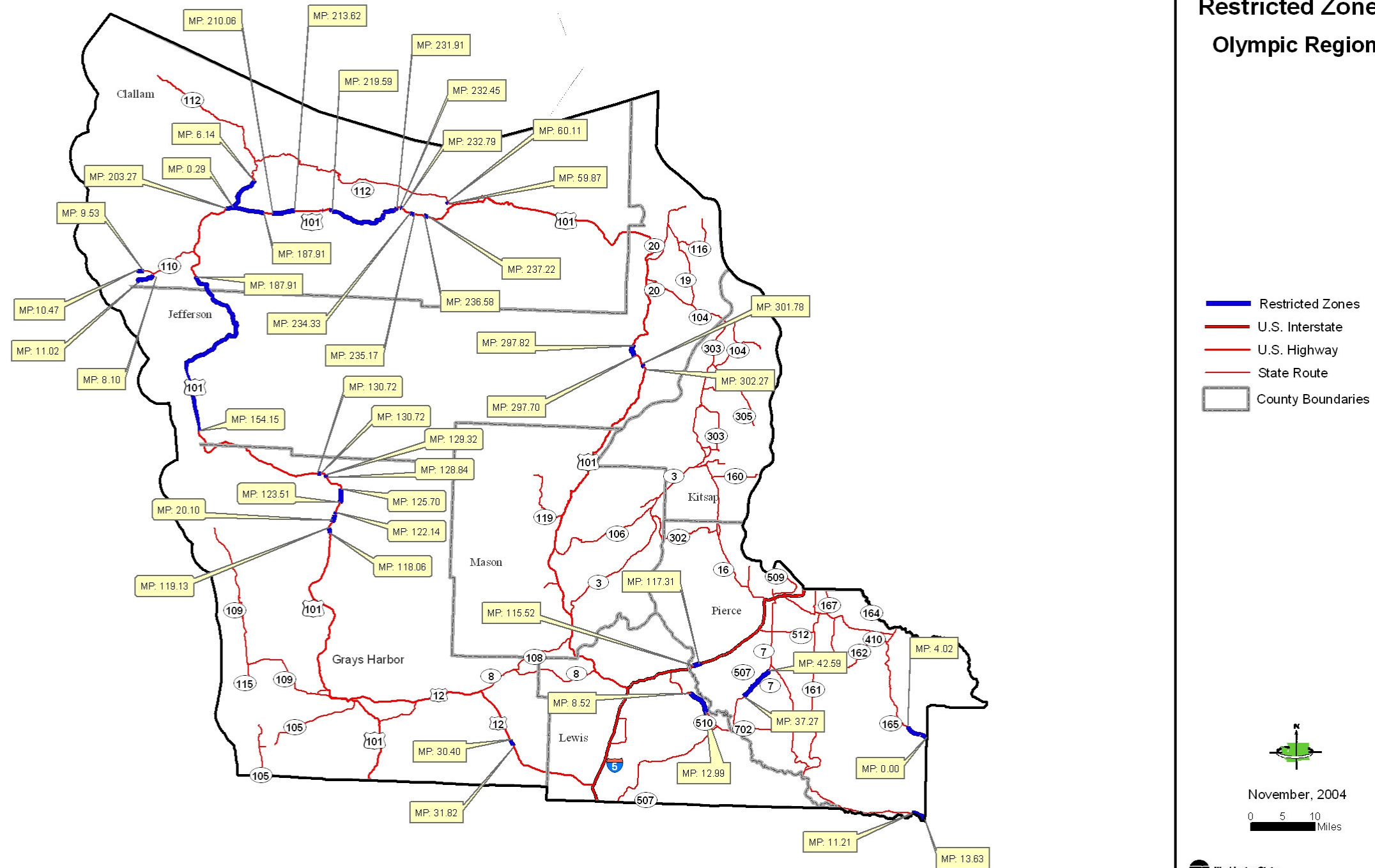


Figure 2a

Species Group B Restricted Zones

Olympic Region

- Restricted Zones
- U.S. Interstate
- U.S. Highway
- State Route
- County Boundaries



September, 2004

0 3 6 12 Miles

Washington State
Department of Transportation

tsj: RestrictedEaglenest.mxd

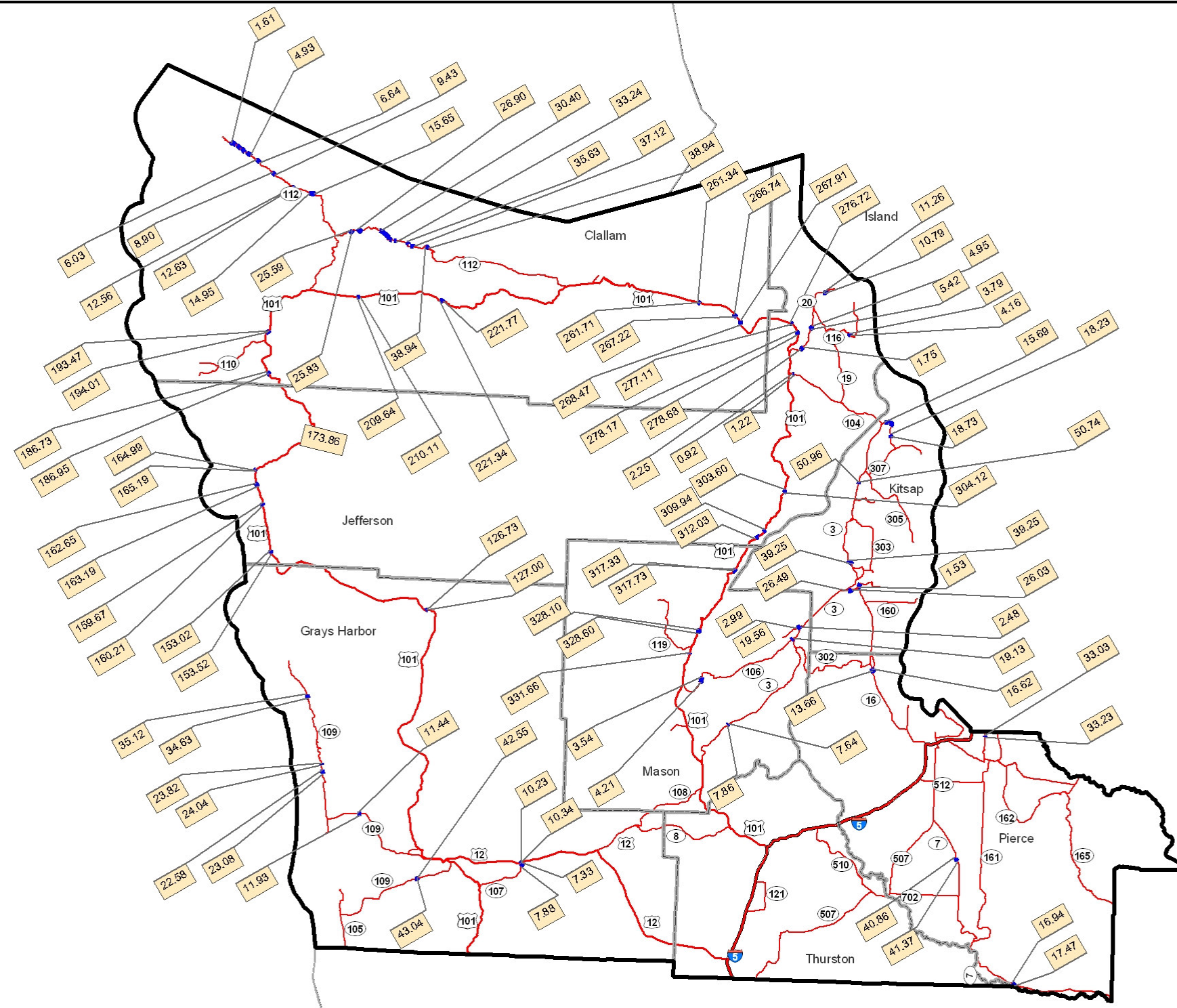
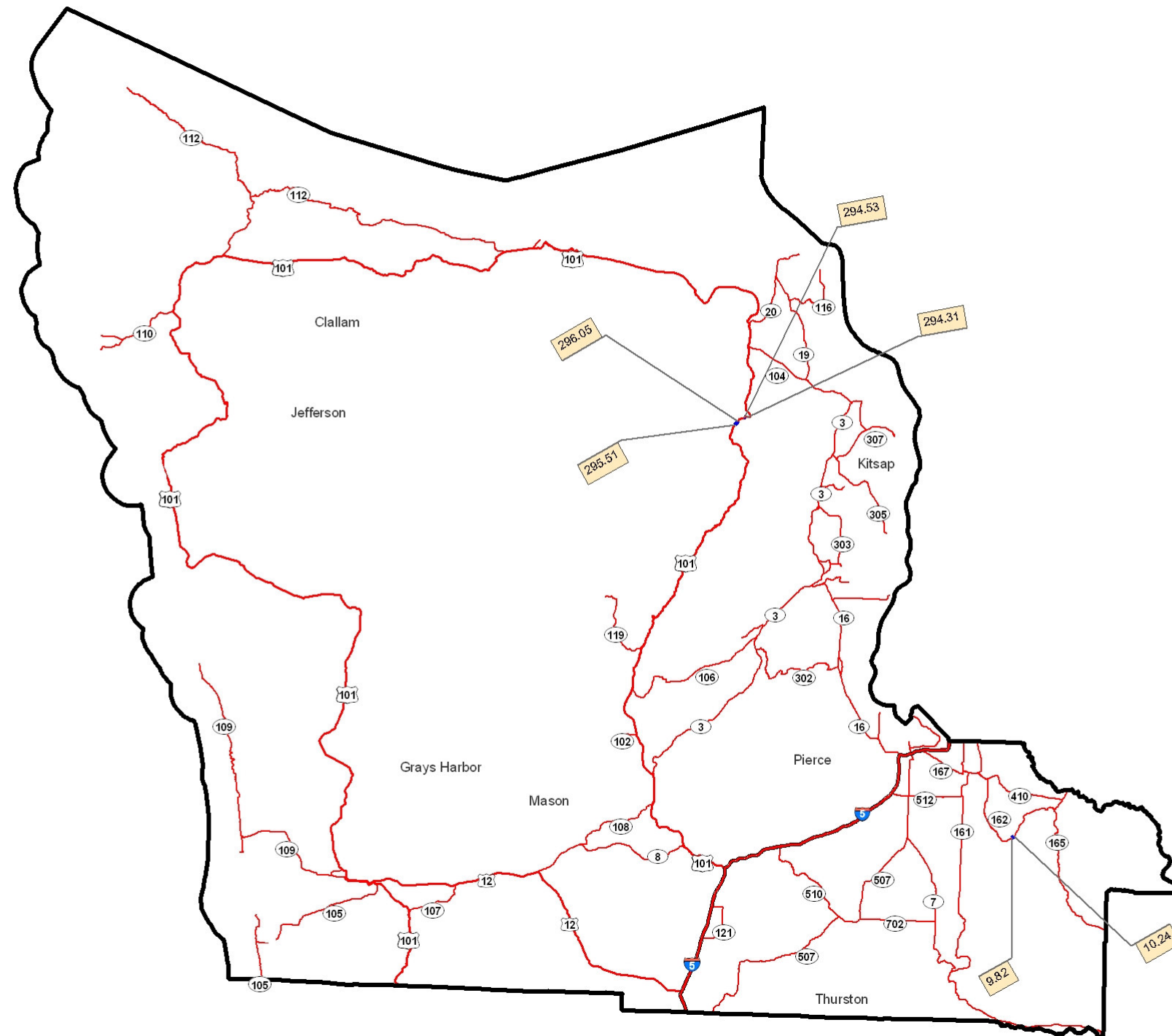


Figure 2b

Species Group B Restricted Zones

Olympic Region



- Restricted Zones
- U.S. Interstate
- U.S. Highway
- State Route



November, 2004

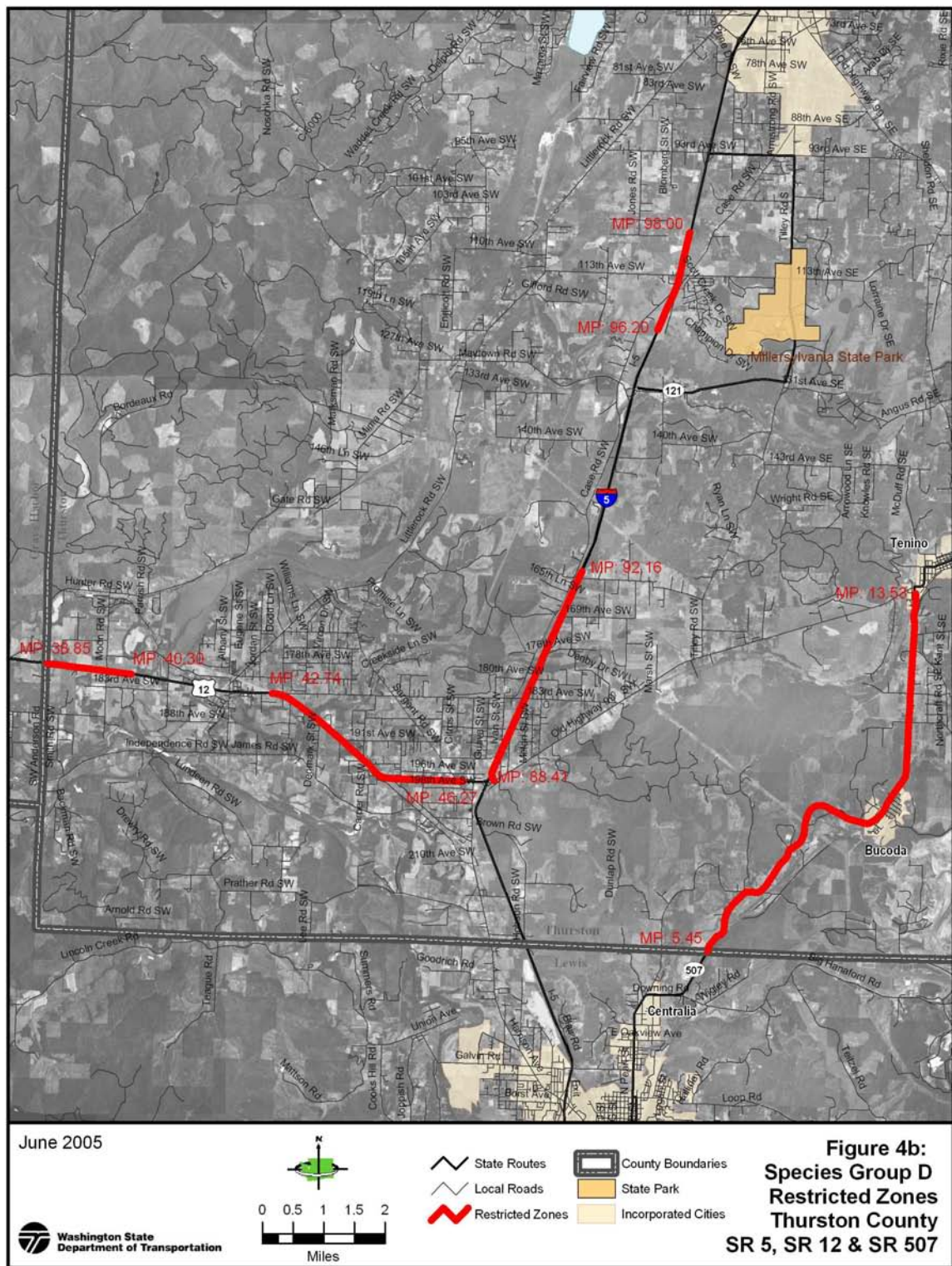
0 3 6 12 Miles

 Washington State
Department of Transportation

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Step 3: If restricted zones do occur within the work area as determined from **Table 3**, identify the applicable Best Management Practice(s) using **Table 4** below for each species group that could be present (determined in Step 1). The Best Management Practices definitions are provided in **Appendix G**.

Table 4
Best Management Practice Matrix

Maintenance Activity	Best Management Practices*														
	Species Group A		Species Group B			Species Group C					Species Group D			Species Group E	
	A-1	A-2	B-1	B-2	B-3	C-1	C-2	C-3	C-4	C-5	D-1	D-2	D-3	E-1	E-2
Group 1															
Pavement grinding	X		X	X					X	X				X	X
Grader patching	X		X	X					X	X				X	X
Shoulder re-grade (pulling shoulders)	X		X	X					X	X					
Chip seal	X		X	X					X	X				X	X
Jack hammering	X		X	X					X	X				X	X
Group 2															
Excavator/backhoe operation (over 1 hour duration)	X		X	X					X	X					
Vector truck operation (over 1 hour duration)	X		X	X					X	X					
Jack hammering	X		X	X					X	X					
Vegetation clearing		X			X	X					X				
Group 3															
Brush cutting	X		X	X					X	X					
Mowing							X					X			
Hazard tree removal	X	X	X	X	X				X	X					
Chain saw use	X	X	X	X	X				X	X					
Herbicide application								X					X		
Vegetation clearing						X					X				

* The Best Management Practices definitions are provided in Appendix F.

Step 4: Answer the questions and identify all applicable Best Management Practices in **Table 5** below. If the proposed maintenance activity will occur in a restricted zone, but no BMPs apply to the activity, check the box that indicates no BMPs are required. Contact your Regional Maintenance Environmental Coordinator if:

- You are uncertain about the applicability of this guidance to the proposed maintenance activity, or
- The applicable BMP(s) prevent(s) the completion of the proposed maintenance activities.

Table 5
Summary of Applicable Best Management Practices*

Species Group	Species Group Occurs in County?	Work Within Restricted Zone?	Check Applicable BMPs*	Will BMP Require Modification of the Proposed Work?
A	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes (if yes, complete the remaining columns) <input type="checkbox"/> No	<input type="checkbox"/> A-1	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> A-2	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Proposed work requires no BMPs	
B	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes (if yes, complete the remaining columns) <input type="checkbox"/> No	<input type="checkbox"/> B-1	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> B-2	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> B-3	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Proposed work requires no BMPs	
C	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes (if yes, complete the remaining columns) <input type="checkbox"/> No	<input type="checkbox"/> C-1	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> C-2	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> C-3	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> C-4	<input type="checkbox"/> Yes
			<input type="checkbox"/> C-5	<input type="checkbox"/> No
			<input type="checkbox"/> Proposed work requires no BMPs	
D	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes (if yes, complete the remaining columns) <input type="checkbox"/> No	<input type="checkbox"/> D-1	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> D-2	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> D-3	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Proposed work requires no BMPs	

Species Group	Species Group Occurs in County?	Work Within Restricted Zone?	Check Applicable BMPs*	Will BMP Require Modification of the Proposed Work?
E	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes (if yes, complete the remaining columns) <input type="checkbox"/> No	<input type="checkbox"/> E-1	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> E-2	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Proposed work requires no BMPs	

* The Best Management Practices definitions are provided in Appendix F.

Appendix A

Species Group “A” Restricted Zone Matrix

State Route	From Milepost	To Milepost	Name
5	115.70	116.80	
7	12.86	16.77	Mineral Block
12	30.26	31.14	
12	32.01	32.05	
101	117.66	118.68	
101	119.73	120.85	
101	119.80	119.81	
101	119.89	119.94	
101	119.99	120.04	
101	120.09	120.18	
101	120.33	120.37	
101	120.39	120.48	
101	121.00	121.37	
101	122.89	125.13	
101	122.95	123.04	
101	123.04	123.09	
101	123.19	123.23	
101	123.31	123.44	
101	124.56	124.67	
101	124.95	125.12	
101	128.51	128.87	
101	129.69	130.32	
101	153.63	158.88	Hoh-Clearwater
101	153.64	166.40	Olympic NP
101	158.88	164.54	Hoh-Clearwater
101	164.54	176.13	Hoh-Clearwater
101	176.13	176.56	Hoh-Clearwater
101	176.56	176.64	Hoh-Clearwater
101	176.64	178.43	Hoh-Clearwater
101	178.43	182.75	Hoh-Clearwater
101	182.35	182.76	
101	182.75	187.37	Hoh-Clearwater
101	183.44	184.02	
101	202.25	208.24	Hoh-Clearwater
101	209.46	213.12	
101	217.42	217.49	Olympic NP
101	218.61	218.65	Olympic NP
101	218.70	218.83	Olympic NP
101	218.92	218.95	Olympic NP
101	219.04	219.04	Olympic NP
101	219.06	219.08	Olympic NP
101	219.11	227.75	Olympic NP
101	227.79	227.91	Olympic NP

State Route	From Milepost	To Milepost	Name
101	228.01	228.72	Olympic NP
101	228.81	230.74	Olympic NP
101	230.91	231.19	
101	231.73	232.07	
101	233.68	233.95	
101	233.95	234.44	
101	235.86	236.48	
101	239.36	239.36	
101	296.84	298.59	
101	296.84	298.57	
101	300.83	301.17	
101	301.26	301.29	
110	1.63	2.67	Hoh-Clearwater
110	7.99	11.10	Hoh-Clearwater
110	11.09	11.10	Olympic NP
112	60.10	60.28	
113	0.00	6.00	Hoh-Clearwater
113	1.99	2.71	
113	2.26	2.68	
113	2.71	3.12	
113	4.04	4.05	
113	5.74	5.79	
165	0.00	0.00	Mount Rainier NP
165	0.01	1.13	
165	1.16	3.75	
507	36.90	42.39	
510	6.05	10.13	
706	11.23	13.64	

Appendix B

Species Group “B” Restricted Zone Matrix (Nesting Season)

State Routes	From Milepost	To Milepost	Buffer Distance (Miles)
003	7.64	7.86	0.25
003	38.88	39.25	0.25
003	39.25	39.41	0.25
003	50.74	50.96	0.25
007	16.94	17.47	0.25
007	40.86	41.37	0.25
012	10.23	10.34	0.25
016	13.33	13.66	0.25
016	26.03	26.49	0.25
020	1.75	2.25	0.25
020	4.95	5.42	0.25
020	10.79	11.26	0.25
101	126.73	127.00	0.25
101	153.02	153.52	0.25
101	159.67	160.21	0.25
101	162.65	163.19	0.25
101	164.99	165.19	0.25
101	173.24	173.86	0.25
101	186.73	186.95	0.25
101	193.47	194.01	0.25
101	209.64	210.11	0.25
101	221.34	221.77	0.25
101	261.34	261.71	0.25
101	266.74	267.22	0.25
101	267.91	268.47	0.25
101	276.72	277.11	0.25
101	278.17	278.68	0.25
101	294.31	294.53	0.25
101	295.51	296.05	0.25
101	303.60	304.12	0.25
101	309.94	310.32	0.25
101	311.33	311.47	0.25
101	311.61	312.03	0.25
101	317.33	317.73	0.25
101	318.67	318.72	0.25
101	328.10	328.60	0.25
101	331.66	331.89	0.25
104	0.92	1.22	0.25
104	15.69	16.23	0.25
104	16.48	17.10	0.25
104	18.23	18.73	0.25

State Routes	From Milepost	To Milepost	Buffer Distance (Miles)
105	42.55	43.04	0.25
106	3.54	4.21	0.25
106	19.13	19.56	0.25
107	7.33	7.88	0.25
109	11.44	11.93	0.25
109	22.59	23.08	0.25
109	23.82	24.04	0.25
109	34.63	35.12	0.25
112	1.61	2.30	0.25
112	2.63	3.14	0.25
112	3.35	3.98	0.25
112	4.41	4.93	0.25
112	6.03	6.64	0.25
112	8.90	9.43	0.25
112	12.56	12.63	0.25
112	14.95	15.65	0.25
112	25.59	25.83	0.25
112	26.90	27.44	0.25
112	30.40	31.68	0.25
112	31.70	31.85	0.25
112	32.01	32.63	0.25
112	33.24	33.52	0.25
112	33.81	34.24	0.25
112	35.63	35.94	0.25
112	36.63	37.12	0.25
112	38.94	39.38	0.25
116	3.79	4.16	0.25
160	7.32	7.35	0.25
161	33.03	33.23	0.25
162	9.82	10.24	0.25
166	0.98	1.53	0.25
300	2.48	2.99	0.25
302	16.62	16.87	0.25

Appendix C
Species Group “B” Restricted Zone Matrix
(Wintering Season)

State Route	From Milepost	To Milepost	Buffer Distance (Miles)
101	294.31	294.53	0.25
101	295.51	296.05	0.25
162	9.82	10.24	0.25

Appendix D

Species Group “C” Restricted Zone Matrix

State Routes	From Milepost	To Milepost
105	30.93	31.54
105	31.94	32.58
105	34.30	35.46
105	37.47	37.83
109	1.46	3.48
109	6.30	7.45
109	21.09	21.52
109	22.07	22.93
109	24.52	24.71
109	27.10	28.15
109	31.33	31.80
109	34.25	35.23

Appendix E

Species Group “D” Restricted Zone Matrix

State Routes	From Milepost	To Milepost
5	88.41	92.16
5	96.20	98.00
12	38.85	40.30
12	42.74	46.27
19	3.47	4.90
19	6.08	8.94
19	12.44	12.75
20	6.50	6.71
116	6.88	7.02
116	8.89	9.16
507	5.45	13.53

Appendix F

Best Management Practices Definitions

A-1 From March 1 through September 30, do not conduct the following activities for more than one hour within 200 feet of restricted zones identified in Figure 1 and Appendix A:

- Pavement grinding
- Grader patching
- Shoulder re-grade (pulling shoulders)
- Chip sealing
- Jack hammering
- Excavator/backhoe operation
- Vactor truck operation
- Brush cutting
- Hazard tree removal

A-2 Contact the Regional Maintenance Environmental Coordinator prior to removing any trees greater than 12 inches diameter at breast height within restricted zones identified in Figure 1 and Appendix A.

B-1 From January 1 through August 15, do not conduct the following activities for more than one hour within restricted zones identified in Figure 2a and Appendix B:

- Pavement grinding
- Grader patching
- Shoulder re-grade (pulling shoulders)
- Chip sealing
- Jack hammering
- Excavator/backhoe operation
- Vactor truck operation
- Brush cutting
- Hazard tree removal

B-2 From October 31 through March 31, do not conduct the following activities within restricted zones identified in Figure 2b and Appendix C:

- Pavement grinding
- Grader patching
- Shoulder re-grade (pulling shoulders)
- Chip sealing
- Jack hammering
- Excavator/backhoe operation
- Vactor truck operation
- Brush cutting
- Hazard tree removal

B-3 Contact the Regional Maintenance Environmental Coordinator prior to removing any trees or snags greater than 12 inches diameter at breast height within restricted zones identified in Figure 2. Consult with a biologist prior to tree removal, except for the removal of hazard trees that pose an immediate safety threat.

C-1 Contact the Regional Maintenance Environmental Coordinator prior to clearing vegetation (grading, grubbing, filling) **outside** of roadside management zone 1 along the following highway segments:

- 105 (MP 30.93 – 31.54; 31.94 – 32.58; 34.30 – 35.46; and 37.47 – 37.83)
- 109 (MP 1.46 – 3.48; 6.30 – 7.45; 21.09 – 21.52; 24.52 – 24.71; 27.10 – 28.15; 31.33 – 31.80; and 34.25 – 35.23)

Note: This condition does not restrict brush cutting that doesn't involve ground disturbance, mowing, or the removal of trees for safety reasons within any management zones (1, 2, or 3) along these highways.

C-2 Contact the Regional Maintenance Environmental Coordinator prior to mowing **outside** of roadside management zones 1 and 2 during May and between July 1 and September 31 along the following highway segments:

- 105 (MP 30.93 – 31.54; 31.94 – 32.58; 34.30 – 35.46; and 37.47 – 37.83)
- 109 (MP 1.46 – 3.48; 6.30 – 7.45; 21.09 – 21.52; 24.52 – 24.71; 27.10 – 28.15; 31.33 – 31.80; and 34.25 – 35.23)

Note: Mowing is encouraged at these sites during the months of April, June and **after** September.

C-3 Contact the Regional Maintenance Environmental Coordinator prior to applying herbicides **outside** of roadside management zone 1 along the following highway segments:

- 105 (MP 30.93 – 31.54; 31.94 – 32.58; 34.30 – 35.46; and 37.47 – 37.83)
- 109 (MP 1.46 – 3.48; 6.30 – 7.45; 21.09 – 21.52; 24.52 – 24.71; 27.10 – 28.15; 31.33 – 31.80; and 34.25 – 35.23)

Note: This condition applies to general applications of herbicides that do not target single species or weed populations such as those applications that involve the broadcast of herbicides over large areas. This condition **does not** apply to spot application of herbicides such as the use of herbicides that are applied to and affect only a single target species, or those that are applied to confined locations with weed infestations.

C-4 Contact the Regional Maintenance Environmental Coordinator prior to conducting pavement grinding, grader patching, shoulder re-grading, chip sealing, brush cutting, or operating a jack hammer, chainsaw, vactor truck, or excavator/backhoe between March 15 and September 15 along the following highway segments:

- 109 between MP 22.07 – 22.93
- 109 between MP 24.52 – 24.71

C-5 Contact the Regional Maintenance Environmental Coordinator prior to conducting pavement grinding, grader patching, shoulder re-grading, chip sealing, brush cutting, or operating a jack hammer, chainsaw, vactor truck, or excavator/backhoe during night-time hours (from one hour before sunset to one hour after sunrise) between June 1 through October 31 along the following highway segments:

- 105 (MP 31.94 – 32.58; 37.47 – 37.83)
- 109 (MP 1.46 – 3.48; 6.30 – 7.45; 21.09 – 21.52; 22.07 – 22.93; 24.52 – 24.71; 27.10 – 28.15)

D- 1 Contact the Regional Maintenance Environmental Coordinator prior clearing vegetation (grading, grubbing, filling) in grassland areas located **outside** of roadside management zone 1 along the following highway segments and as illustrated in Figures 4a and 4b:

- I-5 (MP 88.41 – 92.16 and 96.20 – 98.00) in Thurston County
- SR 12 (MP 38.85 – 40.30 and 42.74 – 46.27) in Thurston County
- SR 507 (MP 5.45 – 13.53) in Thurston County
- SR 19 (MP 3.47 – 4.90, 6.08 – 8.94, and 12.44 – 12.75) in Jefferson County
- SR 20 (MP 6.50 – 6.71) in Jefferson County
- SR 116 (MP 6.88 – 7.02 and 8.89 – 9.16) in Jefferson County

Note: This condition does not restrict brush cutting that doesn't involve ground disturbance, mowing, or the removal of trees for safety reasons within any management zones along these highway segments.

D- 2 Contact the Regional Maintenance Environmental Coordinator prior to mowing between March 15 and September 1 **outside** of roadside management zones 1 and 2 along the following highway segments as illustrated in Figures 4a and 4b:

- I-5 (MP 88.41 – 92.16 and 96.20 – 98.00) in Thurston County
- SR 12 (MP 38.85 – 40.30 and 42.74 – 46.27) in Thurston County
- SR 507 (MP 5.45 – 13.53) in Thurston County
- SR 19 (MP 3.47 – 4.90, 6.08 – 8.94, and 12.44 – 12.75) in Jefferson County
- SR 20 (MP 6.50 – 6.71) in Jefferson County
- SR 116 (MP 6.88 – 7.02 and 8.89 – 9.16) in Jefferson County

Note: This condition does not restrict brush cutting that doesn't involve ground disturbance, mowing, or the removal of trees for safety reasons within any management zones along these highway segments.

D- 3 Contact the Regional Maintenance Environmental Coordinator prior to the widespread application of herbicides in grassland areas located **outside** of roadside management zone 1 along the following highway segments as illustrated in Figures 4a and 4b:

- I-5 (MP 88.41 – 92.16 and 96.20 – 98.00) in Thurston County
- SR 12 (MP 38.85 – 40.30 and 42.74 – 46.27) in Thurston County
- SR 507 (MP 5.45 – 13.53) in Thurston County
- SR 19 (MP 3.47 – 4.90, 6.08 – 8.94, and 12.44 – 12.75) in Jefferson County
- SR 20 (MP 6.50 – 6.71) in Jefferson County
- SR 116 (MP 6.88 – 7.02 and 8.89 – 9.16) in Jefferson County

Note: This condition applies to general applications of herbicides that do not target single species or weed populations such as those applications that involve the broadcast of herbicides over large areas. This condition **does not** apply to spot application of herbicides such as the use of herbicides that are applied to and affect only a single target species, or those that are applied to confined locations with weed infestations.

E- 1 From February 1 through July 15, do not conduct pavement grinding, grader patching, chip sealing, or jack hammering on the following bridges:

- 16/110 Tacoma Narrows Bridge in Pierce County
- 104/5.1 Hood Canal Bridge in Jefferson County
- 303/12 Port Washington Bridge in Kitsap County
- 305/10 Agate Passage Bridge in Kitsap County
- 509/5A Murray Morgan Bridge in Pierce County

E-2 From April 1 through September 30, do not conduct pavement grinding, grader patching, chip sealing, or jack hammering on bridge 107/4, Chehalis River Bridge, in Grays Harbor County.

Appendix G

Example Environmental Compliance Guidance Determination

Example Project Information

Maintenance Activity: Group 2 – Drainage Maintenance and Slope Repair activity consisting of culvert cleaning and ditch re-grading/vegetation clearing within road management zone 2 along SR 109 between mileposts 10.0 and 15.0 in Grays Harbor County. The ditch re-grading and vegetation clearing will affect only shrubs and herbaceous vegetation (no trees).

Equipment: Backhoe/excavator, dump trucks, and vactor truck (over 1 hour duration of use).

Project Timing and Duration: Must occur between June 1 and September 30 to avoid high runoff periods. One week duration.

Step 1

Table 2 indicates that Species Groups A, B, C, and E occur within Grays Harbor County.

Step 2

Table 3, Figure 1, and Appendix A indicate that Species Group A does not occur in the project area. Figure 2a and Appendix B indicate that Species Group B (nesting) occurs in the project area between mileposts 11.44 and 11.93. However, Figure 2b and Appendix C indicate that Species Group B (wintering) does not occur in the project area. Table 3 indicates that Species Group C is not present between mileposts 10.0 and 15.0 on SR 109. Species Group E is also not present in the project area because none of the bridges identified in Appendix F occur in the project area.

Step 2 Summary: Species Group B (nesting) is determined to be present in the project area.

Step 3

Table 4 indicates that for Group 2 maintenance activities that involve the use of excavator/backhoes, vactor trucks, and vegetation clearing, the following BMPs apply:

- **B-1** (Restricts the proposed activities from January 1 through August 15 between mileposts 11.44 and 11.93)
- **B-3** (Requires coordination with the Regional Maintenance Environmental Coordinator prior to removing any trees greater than 12 inches diameter at breast height)

Note: BMP B-2 does not apply because Species Group B (wintering) is not present in the project area as determined in Step 2.

Step 3 Summary: Because the proposed activities are proposed to occur sometime between June 1 and September 30, the timing limitations associated with BMP B-1 will require modification of the proposed work window to between August 15 and September 30 from milepost 11.44 to 11.93. Because no trees will be removed, BMP B-3 does not impose restrictions on the proposed maintenance activities.

Step 4

See completed summary table below.

Summary of Applicable Best Management Practices*

Species Group	Species Group Occurs in County?	Work Within Restricted Zone?	Check Applicable BMPs*	Will BMP Require Modification of the Proposed Work?
A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes (if yes, complete the remaining columns) <input checked="" type="checkbox"/> No	<input type="checkbox"/> A-1	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> A-2	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input checked="" type="checkbox"/> Proposed work requires no BMPs	
B	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes (if yes, complete the remaining columns) <input type="checkbox"/> No	<input checked="" type="checkbox"/> B-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> B-2	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input checked="" type="checkbox"/> B-3	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
			<input type="checkbox"/> Proposed work requires no BMPs	
C	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes (if yes, complete the remaining columns) <input checked="" type="checkbox"/> No	<input type="checkbox"/> C-1	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> C-2	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> C-3	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> C-4	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> C-5	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Proposed work requires no BMPs	
D	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes (if yes, complete the remaining columns) <input checked="" type="checkbox"/> No	<input type="checkbox"/> D-1	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> D-2	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> D-3	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input checked="" type="checkbox"/> Proposed work requires no BMPs	

Species Group	Species Group Occurs in County?	Work Within Restricted Zone?	Check Applicable BMPs*	Will BMP Require Modification of the Proposed Work?
E	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes (if yes, complete the remaining columns) <input checked="" type="checkbox"/> No	<input type="checkbox"/> E-1	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> E-2	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input checked="" type="checkbox"/> Proposed work requires no BMPs	

* The Best Management Practices definitions are provided in Appendix F.

Appendix H

Olympic Region Bridge and Tunnel Maintenance Environmental Compliance Guidance For Protected Terrestrial Species

***Appendix H is provided separate from this document.**